

CLAIMS:

1. A vehicle blower motor device comprising:

a motor; and

5 a holder, wherein the holder includes:

a holder body, which accommodates and holds the motor;

a flange extending radially outward from the holder body; and

10 a cover plate, wherein the cover plate is attached to the flange and the holder body such that the cover plate is located below the flange, wherein a first boundary is formed between the cover plate and the flange, and wherein a second boundary is formed between
15 the cover plate and the holder body,

wherein the holder body, the flange, and the cover plate define an air duct, wherein the flange has an inlet, wherein the inlet connects the air duct, which is located below the flange, with an outside space that is located above the flange,
20 wherein air is guided from the inlet to the interior of the holder body through the air duct to cool the motor, and

wherein a blocking portion is provided in the air duct and between the inlet and the first boundary, wherein the blocking portion prevents liquid collected on the inlet from
25 reaching the first boundary.

2. The device according to claim 1, further comprising a control circuit for controlling the motor, wherein the control circuit is accommodated in the holder.

30 3. The device according to claim 2, wherein the holder has an accommodation chamber for accommodating the control circuit, and wherein part of the first boundary is located in a portion of the holder that defines the accommodation chamber.

4. The device according to claim 3, wherein the blocking portion prevents liquid collected on the inlet from reaching the accommodation chamber along the first boundary.

5 5. The device according to claim 1, wherein the blocking portion is separated from the first boundary.

6. The device according to claim 1, wherein the blocking portion includes a cylindrical blocking wall that surrounds
10 the inlet.

7. The device according to claim 6, wherein the blocking wall protrudes from the lower surface of the flange, which faces the air duct, toward the interior of the air duct.
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8. The device according to claim 7, wherein the blocking wall extends further downward beyond the first boundary.

9. The device according to claim 7, wherein a part of
20 the inner surface of the blocking wall that is close to the holder body is closer to the holder body than that of the inlet.

10. The device according to claim 7, wherein the
25 arrangement of the blocking wall relative to the inlet is determined such that air introduced to the air duct from the inlet collides with the blocking wall.

11. The device according to claim 7, wherein the cross-
30 sectional area of an opening defined by the blocking wall is greater than that of the inlet.

12. The device according to claim 1, wherein the
blocking portion includes a blocking groove, and wherein the
35 blocking groove is formed in the lower surface of the flange,

which faces the air duct, such that the blocking groove surrounds the inlet.

13. A holder in a vehicle blower motor device,

5 comprising:

a holder body, which accommodates and holds a motor;

a flange extending radially outward from the holder body;

a cover plate, wherein the cover plate is attached to
10 the flange and the holder body such that the cover plate is located below the flange, wherein a first boundary is formed between the cover plate and the flange, and wherein a second boundary is formed between the cover plate and the holder body;

15 an air duct defined by the holder body, the flange, and the cover plate, wherein the flange has an inlet, wherein the inlet connects the air duct, which is located below the flange, with an outside space that is located above the flange, wherein air is guided from the inlet to the interior of the
20 holder body through the air duct to cool the motor; and

a blocking portion, which is provided in the air duct and between the inlet and the first boundary, wherein the blocking portion prevents liquid collected on the inlet from reaching the first boundary.

25 14. The holder according to claim 13, wherein the holder accommodates a control circuit for controlling the motor.

15. The holder according to claim 14, wherein the holder
30 has an accommodation chamber for accommodating the control circuit, and wherein part of the first boundary is located in a portion of the holder that defines the accommodation chamber.

16. The holder according to claim 15, wherein the
35 blocking portion prevents liquid collected on the inlet from

reaching the accommodation chamber along the first boundary.

17. The holder according to claim 13, wherein the blocking portion is separated from the first boundary.

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18. The holder according to claim 13, wherein the blocking portion includes a cylindrical blocking wall that surrounds the inlet, and wherein the blocking wall protrudes from the lower surface of the flange, which faces the air duct, toward the interior of the air duct.

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19. The holder according to claim 18, wherein the blocking wall extends further downward beyond the first boundary.

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20. The holder according to claim 13, wherein the blocking portion includes a blocking groove, and wherein the blocking groove is formed in the lower surface of the flange, which faces the air duct, such that the blocking groove surrounds the inlet.

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